



HISTOPATHOLOGICAL SPECTRUM OF ENDOMETRIAL LESIONS IN PERIMENOPAUSAL AND POSTMENOPAUSAL WOMEN IN ABNORMAL UTERINE BLEEDING.

Pathology

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ABSTRACT

The main aim of this study was to evaluate aetiology of abnormal uterine bleeding in perimenopausal and postmenopausal women by histopathological examination of endometrium.

MATERIALS AND METHODS: A prospective study of women with abnormal uterine bleeding above the age of 40 yrs was conducted at Modern Government Maternity Hospital, Hyderabad over a period of 1 yr from June 2016 to May 2017. Endometrial samples from both D&C and hysterectomy were included in study. The specimens were processed, stained and subjected to microscopic examination to arrive at histopathological diagnosis.

RESULTS: A total of 450 patients were studied. Age of the patients ranged from 41 to 80years which included perimenopausal(41-49 years) and postmenopausal(50 years and above) age group.Majority of cases were from perimenopausal group. The common clinical presentation was abnormal uterine bleeding in perimenopausal group and postmenopausal bleeding in postmenopausal group. In perimenopausal group, the common finding was proliferative endometrium(21%). Hyperplasia was seen in 12% and carcinoma was seen in 0.44%.One case of tuberculous endometritis was seen .In postmenopausal group, the common finding was atrophic endometrium.Hyperplasia was seen in 18% of cases and carcinoma in 0.8%

KEYWORDS:

PERIMENOPAUSAL, POST MENOPAUSAL, ABNORMAL UTERINE BLEEDING.

INTRODUCTION:

The endometrium which lines the uterine cavity is one of the most dynamic tissues in the human body; an interesting tissue for histopathologic study. It is characterized by cyclic processes of cell proliferation, differentiation and death in response to sex steroids elaborated in the ovary⁽¹⁾.

Abnormal uterine bleeding is a major gynaecological problem, accounting for 33% of outpatient referrals, including 69% of referrals in peri-menopausal and postmenopausal age group ⁽²⁾. One third of patients attending gynaecology OPD present with complaints of abnormal uterine bleeding ⁽³⁾.

Bleeding is said to be abnormal when the pattern is irregular, abnormal duration(>7days), or menorrhagia or abnormal amount (>80 ml/menses) ⁽⁴⁾. It includes both organic and non organic causes of uterine bleeding⁽⁵⁾.

Abnormal uterine bleeding affects up to 50% of perimenopausal woman ⁽⁶⁾. AUB maybe the most common presenting complaint in patients with pre-malignant or malignant endometrial lesion ⁽⁷⁾.

Organic pathology causing uterine bleeding in postmenopausal women include endometrial polyps, endometrial hyperplasia and endometrial carcinoma. More often than not, an organic cause is not identifiable and the histopathology may show atrophic endometrium, proliferative endometrium and rarely secretory endometrium ⁽⁸⁾.

About 5% of women with postmenopausal bleeding have endometrial hyperplasia characterized by a simple, complex or atypical hyperplasia. Postmenopausal hyperplasia carries a stronger threat of cancer than does premenopausal hyperplasia ^(9,10)

RESULTS:

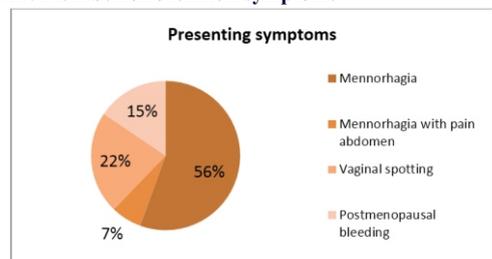
A total of 450 endometrial samples from both D&C and hysterectomy were analysed. Patients were categorised into perimenopausal and postmenopausal group.Majority of the patients were in perimenopausal age group constituting 70% whereas patients in postmenopausal age group constituted 30%.

Table 1 :Age distribution of patients studied.

Age in yrs	No. of cases
41-50	315
51-60	90
61-70	30
71-80	15

The most common presentation in perimenopausal women was menorrhagia (56%) and in post menopausal women was post menopausal bleeding.

Graph 1: Distribution of clinical symptoms



In our present study, out of patients ,the commonest histological finding was Proliferative endometrium constituting 29% followed by endometrial hyperplasia (31%).Atrophic Endometrium constituted 21% and Endometrial carcinoma constituted 1.3%. One case of Tuberculous endometritis was found in our study.

Graph 2: Incidence of various lesions

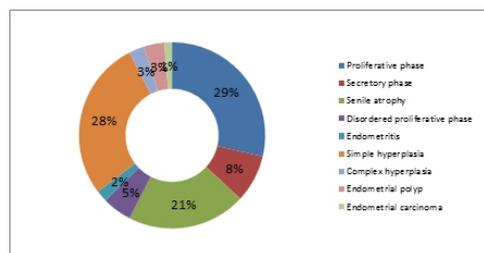
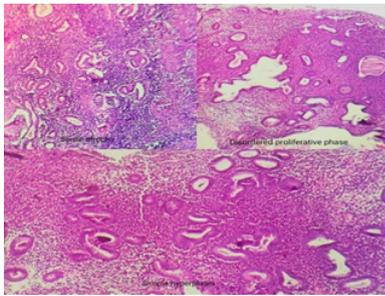
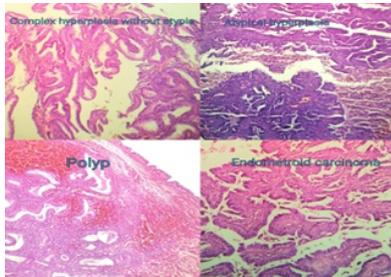


Figure1: H&E (10X) Microphotograph of various endometrial lesions**Figure2: H&E Microphotograph of hyperplasias and polyp****Discussion:**

The term abnormal uterine bleeding has been used to describe any bleeding not fulfilling the criteria of normal menstrual bleeding. The diseases of endometrium leading to AUB in perimenopausal and postmenopausal period are^(1,11,12)

1. Benign diseases- Endometritis (Acute/Chronic, Specific/ Nonspecific), Atrophy, Endometrial Polyp.
 2. Precursor lesions of endometrial carcinoma- Endometrial hyperplasia, Endometrial Interepithelial Neoplasia
 3. Tumours- Endometrial carcinoma and other mesenchymal tumours
- In our study 450 patients of AUB were evaluated and their pathological features studied.

Majority of the patients were in perimenopausal age group (70%) followed by postmenopausal (30%) which was comparable with study conducted by Rajshri et al⁽¹³⁾. The reason for this finding may be due to the fact that the patients were evaluated much earlier and treated appropriately thereby decreasing the incidence in later age group.

The most common clinical presentation in perimenopausal women was menorrhagia seen in 53% which was comparable with study conducted by Rajshri et al⁽¹³⁾ and Yusuf et al⁽¹⁴⁾ and most common complaint in postmenopausal women was postmenopausal bleeding.

In our present study the most common finding was proliferative endometrium in 21% of cases in perimenopausal women which was comparable with a study by Bhatta et al⁽¹⁶⁾ who reported in 23.7%.

Only 8% of cases of proliferative endometrium were in postmenopausal age group which is comparable to a study conducted by Gredmark et al⁽¹⁷⁾ showed lower incidence of 4.3% of cases. The bleeding in the proliferative phase may be due to anovulatory cycles⁽¹²⁾

Secretory endometrium was reported in 8% of cases in perimenopausal age group which was comparable with the study conducted by Rajshri et al⁽¹³⁾ who reported in 9.24%. Bleeding in the secretory phase is due to ovulatory dysfunction uterine bleeding.

Atrophic endometrium showed higher incidence and was reported in 21% of which 16% were in postmenopausal group and 5% in perimenopausal group which was similar to a study done by Kavita et al⁽¹³⁾ whereas lower incidence was seen in study by Rajshri et al⁽¹³⁾ who reported in 8.4%.

Atrophic endometrium was seen predominantly in postmenopausal age group due to lack of estrogenic leading to thin atrophic endometrium susceptible to minor injury.

Disordered proliferative endometrium was reported in 5% which is comparable to the study conducted by Bhatta et al⁽¹⁶⁾ who reported in 6.5% whereas Rajshri et al⁽¹³⁾ reported an higher incidence of 13.44% of cases. None of the cases in postmenopausal group showed disordered proliferative phase. Disordered proliferative phase represents the beginning of a spectrum of proliferative lesions which if diagnosed early can prevent progression to carcinoma.

Chronic Endometritis was reported in 3% in perimenopausal group which was comparable with study conducted by Sudhamani et al⁽¹⁹⁾ who reported in 2.43%. Only one patient in perimenopausal group showed tuberculous endometritis comparable to study conducted by Rajshri et al⁽¹³⁾ reported in 1.1% of cases. Endometritis was not seen in postmenopausal women in our study.

Endometrial polyp was reported in 3% of perimenopausal women which was comparable with study conducted by Bhatta et al⁽¹⁶⁾ who reported in 3.2% of cases. A much lower incidence was found in postmenopausal women when compared with study conducted by Gredmark et al⁽¹⁷⁾ who reported in 9.5% of cases.

The second most common lesion was endometrial hyperplasia (30%) which was comparable with study conducted by Bhatta et al⁽¹⁶⁾ who reported in 19.4% and Rajshri et al⁽¹³⁾ who reported in 22.7% of cases.

Amongst hyperplasia incidence of simple endometrial hyperplasia (91%) was more common in the 40-49 years age group which was comparable with study conducted by Khare et al⁽¹⁵⁾ who reported in 82.4% of cases.

Only 5 cases of atypical hyperplasia were reported which is lower incidence when compared to study conducted by Khare et al⁽¹⁵⁾ most of which were in postmenopausal group.

In our present study, the incidence of Endometrial carcinoma in perimenopausal group was reported in 0.44% and 0.8% in postmenopausal women which was comparable with study conducted by Gulia et al⁽¹⁸⁾ who reported in 0.23% of cases and 0.9%.

A lower incidence of endometrial cancer can possibly be attributed to the practice of early childbearing and multiparity.

CONCLUSION:

There is an age specific association of endometrial lesions. Histopathological examination of D&C and Hysterectomy specimens will pin point the exact cause of the abnormal uterine bleeding and helps not only in planning proper management of cases but also to predict prognosis. Hence, histopathological examination is mandatory, in cases of peri-menopausal and post-menopausal abnormal uterine bleeding.

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